

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P312041

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-CA08-W2A-U-3500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P312041
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L83050-RDP-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET
Light Source: (168) 3500K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1798.0 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

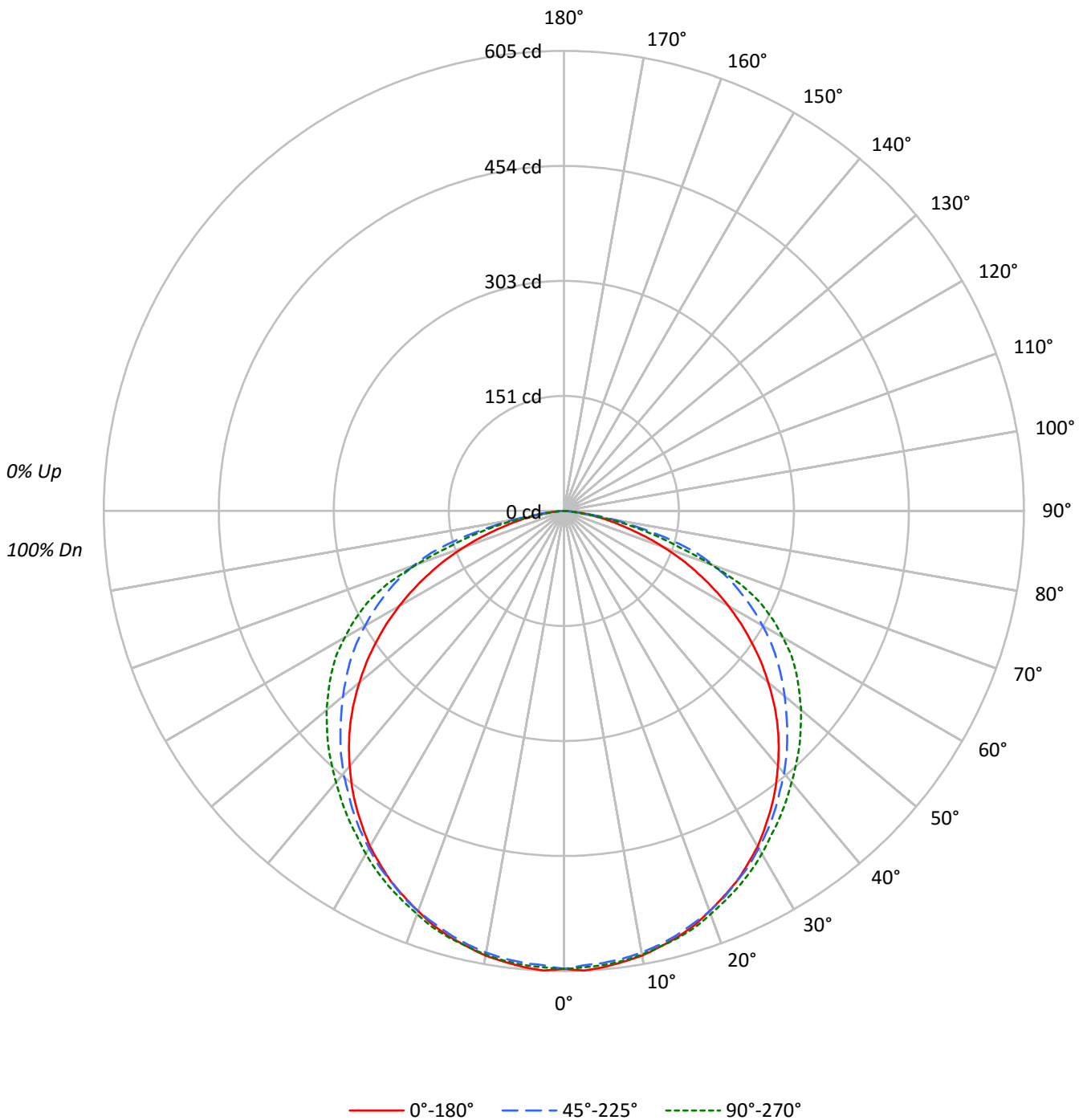
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1621	1621	1621
5°	1627	1612	1619
10°	1623	1611	1619
15°	1615	1607	1619
20°	1604	1604	1616
25°	1596	1596	1617
30°	1583	1592	1618
35°	1563	1586	1623
40°	1539	1583	1637
45°	1512	1581	1667
50°	1469	1587	1704
55°	1416	1607	1752
60°	1345	1624	1791
65°	1242	1645	1815
70°	1105	1657	1623
75°	890	1489	1299
80°	696	1044	848
85°	475	303	216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.0	3.2
10°-20°	163.5	9.1
20°-30°	249.0	13.8
30°-40°	303.3	16.9
40°-50°	321.8	17.9
50°-60°	303.7	16.9
60°-70°	245.2	13.6
70°-80°	133.0	7.4
80°-90°	21.5	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	469.5	26.1
0°-40°	772.8	43.0
0°-60°	1398.3	77.8
0°-90°	1798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1798.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	602	602	602	602	602	
5°	602	601	597	601	599	57
15°	580	578	577	581	581	164
25°	538	536	538	543	545	248
35°	476	479	483	493	494	298
45°	397	403	416	431	438	306
55°	302	314	342	365	373	270
65°	195	219	258	279	285	193
75°	86	125	143	129	125	94
85°	15	17	10	8	7	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	602.2	602.2	602.2	602.2	602.2
2.5°	605.0	602.2	598.0	602.2	600.8
5°	602.2	600.8	596.6	600.8	599.4
7.5°	598.0	598.0	593.8	596.6	596.6
10°	593.8	592.4	589.6	593.8	592.4
12.5°	586.8	585.4	583.9	588.2	586.8
15°	579.7	578.3	576.9	581.1	581.1
17.5°	571.3	569.9	568.5	574.1	574.1
20°	560.1	560.1	560.1	565.7	564.3
22.5°	548.9	548.9	550.3	555.9	554.5
25°	537.6	536.2	537.6	543.2	544.6
27.5°	523.6	525.0	526.4	532.0	533.4
30°	509.6	511.0	512.4	519.4	520.8
32.5°	492.7	495.5	498.3	506.7	506.7
35°	475.9	478.7	482.9	492.7	494.1
37.5°	457.6	460.4	466.0	477.3	480.1
40°	438.0	442.2	450.6	461.8	466.0
42.5°	418.3	423.9	433.7	446.4	452.0
45°	397.3	402.9	415.5	430.9	438.0
47.5°	374.8	381.8	397.3	416.9	422.5
50°	350.9	360.8	379.0	400.1	407.1
52.5°	327.1	338.3	360.8	383.2	390.2
55°	301.8	314.4	342.5	365.0	373.4
57.5°	276.5	290.6	322.9	346.7	355.1
60°	249.9	266.7	301.8	325.7	332.7
62.5°	223.2	242.8	280.7	304.6	310.2
65°	195.1	219.0	258.3	279.3	285.0
67.5°	168.4	196.5	235.8	251.3	251.3
70°	140.4	171.3	210.6	214.8	206.3
72.5°	112.3	147.4	182.5	167.0	160.0
75°	85.6	124.9	143.2	129.1	124.9
77.5°	64.6	101.1	101.1	92.6	89.8
80°	44.9	77.2	67.4	59.0	54.7
82.5°	29.5	43.5	35.1	28.1	23.9
85°	15.4	16.8	9.8	8.4	7.0
87.5°	5.6	2.8	1.4	2.8	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)